

THAT WHICH IS CLAIMED IS:

1. A coaxial cable jumper assembly comprising:
a jumper coaxial cable comprising an inner
conductor, a dielectric layer surrounding said inner
conductor, and an outer conductor surrounding said
5 dielectric layer;
said outer conductor comprising an aluminum layer
and a tin layer thereon;
at least one connector; and
at least one solder joint coupling together said at
10 least one connector and adjacent portions of the tin
layer of said outer conductor.
2. A coaxial cable jumper assembly according to
Claim 1 wherein said tin layer comprises a tin alloy.
3. A coaxial cable jumper assembly according to
Claim 2 wherein said tin alloy comprises a tin/lead
alloy.
4. A coaxial cable jumper assembly according to
Claim 1 wherein said jumper coaxial cable further
comprises an insulating jacket surrounding said outer
conductor.
5. A coaxial cable jumper assembly according to
Claim 1 wherein said outer conductor has a continuous,
non-braided, tubular shape.
6. A coaxial cable jumper assembly according to
Claim 1 wherein said tin layer extends continuously along

an entire length of said outer conductor.

7. A coaxial cable jumper assembly according to Claim 1 wherein said tin layer is on a radially-outer surface of said aluminum layer.

8. A coaxial cable jumper assembly according to Claim 1 wherein said at least one connector comprises first and second connectors.

9. A coaxial cable jumper assembly according to Claim 1 wherein said jumper coaxial cable has characteristics to be shape retaining when formed into a shape having at least one bend therein.

10. A coaxial cable jumper assembly according to Claim 1 wherein said inner conductor comprises an aluminum rod with a copper layer thereon.

11. A coaxial cable jumper assembly according to Claim 1 wherein said at least one connector further comprises a connector contact coupled to said inner conductor.

12. A coaxial cable jumper assembly according to Claim 1 wherein said dielectric layer comprises plastic.

13. A coaxial cable jumper assembly according to Claim 1 wherein said jumper coaxial cable has a diameter in a range of about 1/8 to 2 inches.

14. A coaxial cable jumper assembly comprising:

a jumper coaxial cable comprising an inner conductor, a dielectric layer surrounding said inner conductor, an outer conductor surrounding said dielectric layer, and an outer jacket surrounding said outer conductor;
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said outer conductor having a continuous, non-braided, tubular shape;

said outer conductor comprising an aluminum layer and an outer tin layer extending continuously along an entire length thereof;
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at least one connector comprising a connector body; and

at least one solder joint coupling the at least one connector onto adjacent portions of the tin layer of said outer conductor adjacent at least one respective end thereof
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15. A coaxial cable jumper assembly according to Claim 14 wherein said tin layer comprises a tin alloy.

16. A coaxial cable jumper assembly according to Claim 15 wherein said tin alloy comprises a tin/lead alloy.

17. A coaxial cable jumper assembly according to Claim 14 wherein said jumper coaxial cable further comprises an insulating jacket surrounding said outer conductor.

18. A coaxial cable jumper assembly according to Claim 14 wherein said at least one connector comprises first and second connectors.

19. A coaxial cable jumper assembly according to Claim 14 wherein said jumper coaxial cable has characteristics to be shape retaining when formed into a shape having at least one bend therein.

20. A coaxial cable jumper assembly according to Claim 14 wherein said inner conductor comprises an aluminum rod with a copper layer thereon.

21. A coaxial cable jumper assembly according to Claim 14 wherein said at least one connector further comprises a connector contact coupled to said inner conductor.

22. A coaxial cable jumper assembly according to Claim 14 wherein said dielectric layer comprises plastic.

23. A coaxial cable jumper assembly according to Claim 14 wherein said jumper coaxial cable has a diameter in a range of about 1/8 to 2 inches.

24. A coaxial cable system comprising:

a main coaxial cable and at least one coaxial cable jumper assembly coupled thereto, said at least one coaxial cable jumper assembly comprising

5 a jumper coaxial cable having a diameter less than a diameter of said main coaxial cable and having a length less than said main coaxial cable, said jumper coaxial cable comprising an inner conductor, a dielectric layer surrounding said inner
10 conductor, and an outer conductor surrounding said dielectric layer,

said outer conductor of said jumper coaxial cable comprising an aluminum layer and a tin layer thereon,

- 15 at least one connector, and
 at least one solder joint coupling together
said at least one connector and adjacent portions of the tin layer of said outer conductor of said jumper coaxial cable.

25. A coaxial cable system according to Claim 24 wherein said tin layer comprises a tin alloy.

26. A coaxial cable system according to Claim 25 wherein said tin alloy comprises a tin/lead alloy.

27. A coaxial cable system according to Claim 24 wherein said jumper coaxial cable further comprises an insulating jacket surrounding said outer conductor.

28. A coaxial cable system according to Claim 24 wherein said outer conductor of said jumper coaxial cable has a continuous, non-braided, tubular shape.

29. A coaxial cable system according to Claim 24 wherein said tin layer extends continuously along an entire length of said outer conductor of said jumper coaxial cable.

30. A coaxial cable system according to Claim 24 wherein said tin layer is on a radially-outer surface of said aluminum layer of said jumper coaxial cable.

31. A coaxial cable system according to Claim 24 wherein said at least one connector comprises first and second connectors.

32. A coaxial cable system according to Claim 24 wherein said jumper coaxial cable has characteristics to be shape retaining when formed into a shape having at least one bend therein.

33. A coaxial cable system according to Claim 24 wherein said inner conductor of said jumper coaxial cable comprises an aluminum rod with a copper layer thereon.

34. A coaxial cable system according to Claim 24 wherein said at least one connector further comprises a connector contact coupled to said inner conductor of said jumper coaxial cable.

35. A coaxial cable system according to Claim 24 wherein said dielectric layer of said jumper coaxial cable comprises plastic.

36. A coaxial cable system according to Claim 24 wherein said jumper coaxial cable has a diameter in a range of about 1/8 to 2 inches

37. A method for making a coaxial cable jumper assembly comprising:

forming a tin layer on an aluminum outer conductor of a jumper coaxial cable, the jumper coaxial cable further comprising an inner conductor and a dielectric layer between the inner and outer conductors; and

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soldering at least one connector to the tin layer adjacent at least one respective end of the jumper coaxial cable.

38. A method according to Claim 37 wherein forming the tin layer comprises forming a tin alloy layer.

39. A method according to Claim 38 wherein forming the tin alloy layer comprises forming a tin/lead alloy layer.

40. A method according to Claim 37 wherein the outer conductor has a continuous, non-braided, tubular shape.

41. A method according to Claim 37 wherein forming the tin layer comprises plating the tin layer.

42. A method according to Claim 41 wherein plating the tin layer comprises plating the tin layer to extend continuously along an entire length of the outer conductor.

43. A method according to Claim 41 wherein plating is performed in a plating bath.

44. A method according to Claim 41 wherein plating the tin layer comprises plating the tin layer on a radially-outer surface of the aluminum layer.

45. A method according to Claim 37 further comprising cutting the jumper coaxial cable to a desired

length before soldering.

46. A method according to Claim 37 further comprising forming a jacket surrounding the outer conductor and stripping back a portion thereof prior to soldering.

47. A method according to Claim 37 wherein soldering comprises positioning a body of solder between the at least one connector and the outer conductor, and thereafter heating the body of solder to flow and join
5 the at least one connector and outer conductor together.

48. A method according to Claim 47 wherein the heating is performed by induction heating.

49. A method according to Claim 37 wherein soldering comprises injecting melted solder between the at least one connector and the outer conductor to join the at least one connector and outer conductor together.

50. A method according to Claim 37 wherein soldering at least one connector comprises soldering first and second connectors on respective first and second ends of the jumper coaxial cable.